Service Schematics

NOKIA 7370

Introduction

Exploded view and component disposal

RM-70

IMPORTANT:

This document is intended for use by authorized NOKIA service centers only.

"Service Schematics" was created with focus on customer care.
The purpose of this document is to provide further technical repair information for NOKIA mobile phones on Level 3/4 service activities.
It contains additional information such as e.g. "Component finder", "Frequency band table" or "Antenna switch table".
The "Signal overview" page gives a good and fast overview about the most important signals and voltages on board.
Saving process time and improving the repair quality is the aim of this document.
It is to be used additionally to the service manual and other training or service information such as Service Bulletins.

All measurements were made using following equipment:

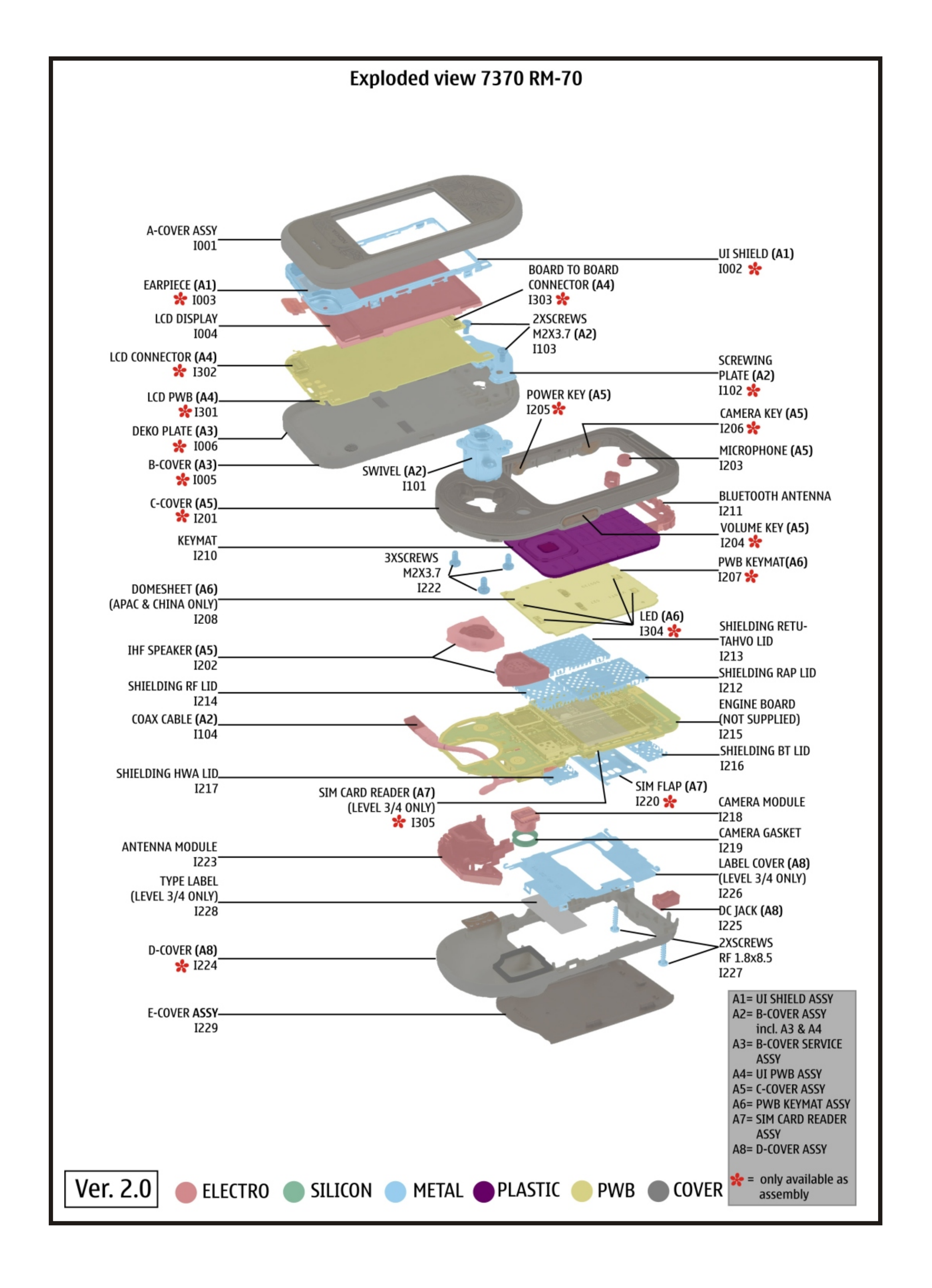
Nokia repair SW	:	Phoenix version 2005.20.7.98
Oscilloscope	:	Fluke PM 3380A/B
Spectrum Analyzer	:	Advantest R3162 with an analog probe
RF-Generator / GSM Tester	:	Rhode & Schwarz CMU 200
Multimeter	:	Fluke 73 Series II

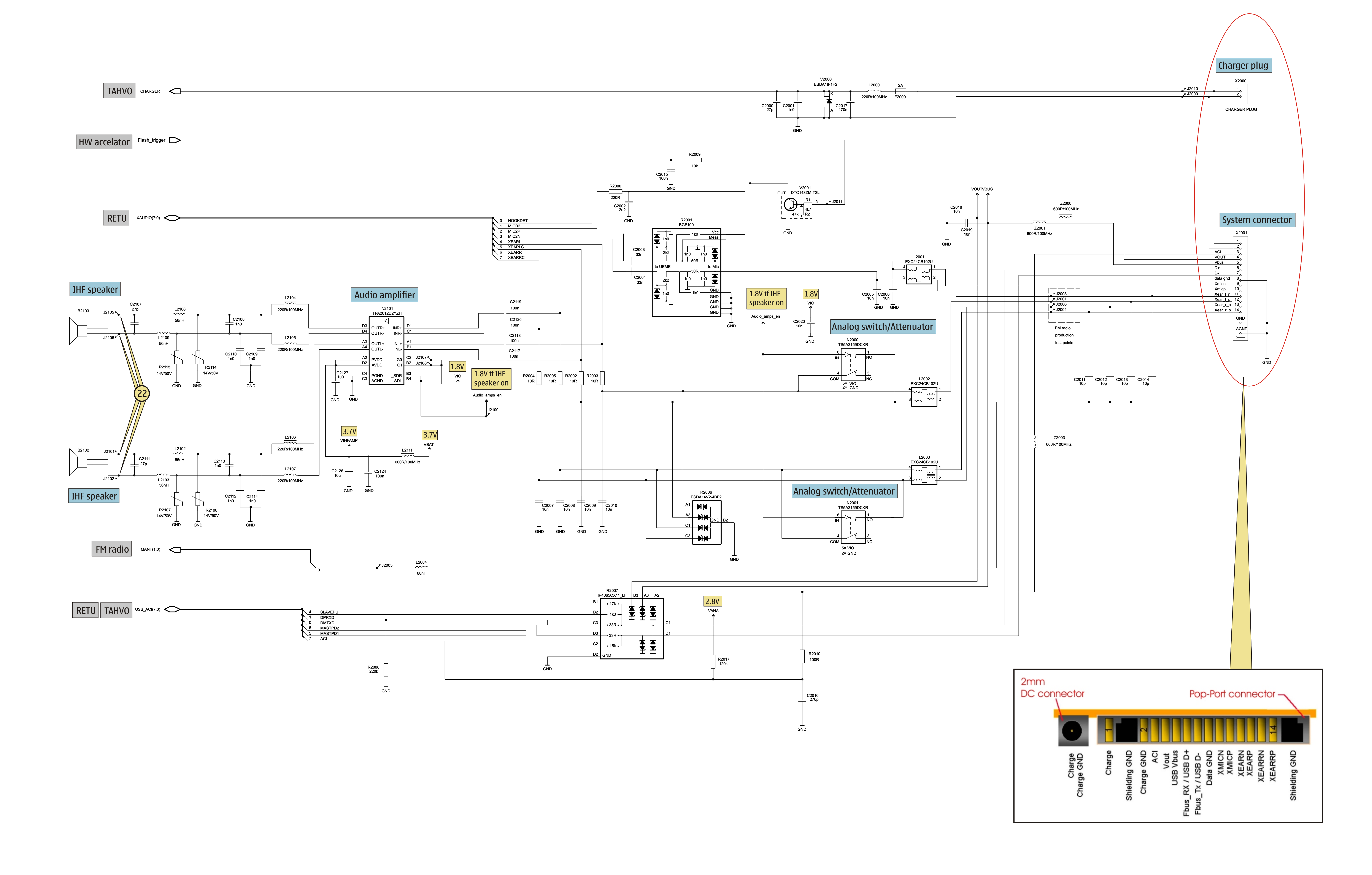
While every endeavour has been made to ensure the accuracy of this document, some errors may exist. If the reader finds any errors, NOKIA should be notified in writing.

Please send E-Mail to: training.sace@nokia.com

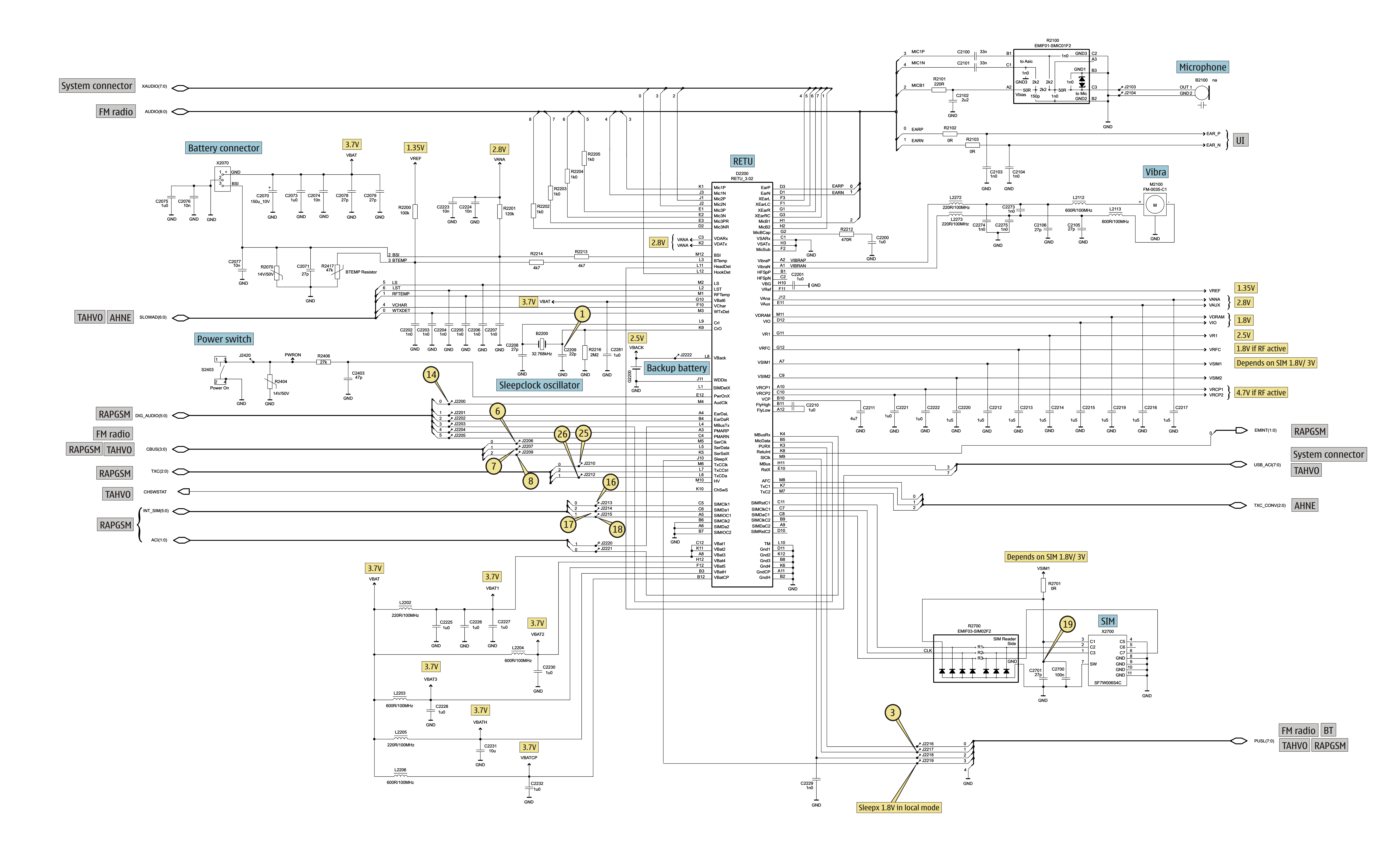


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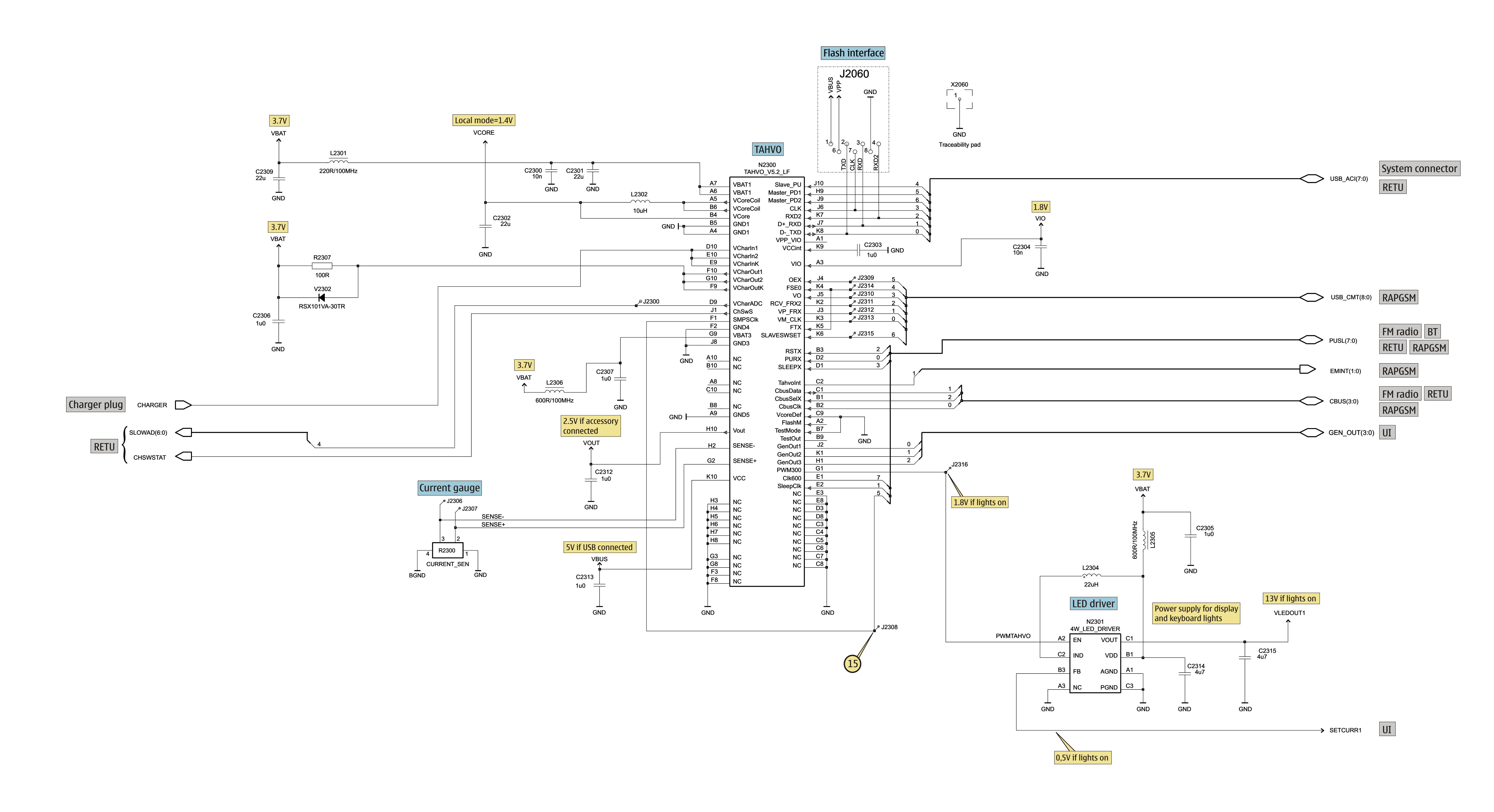




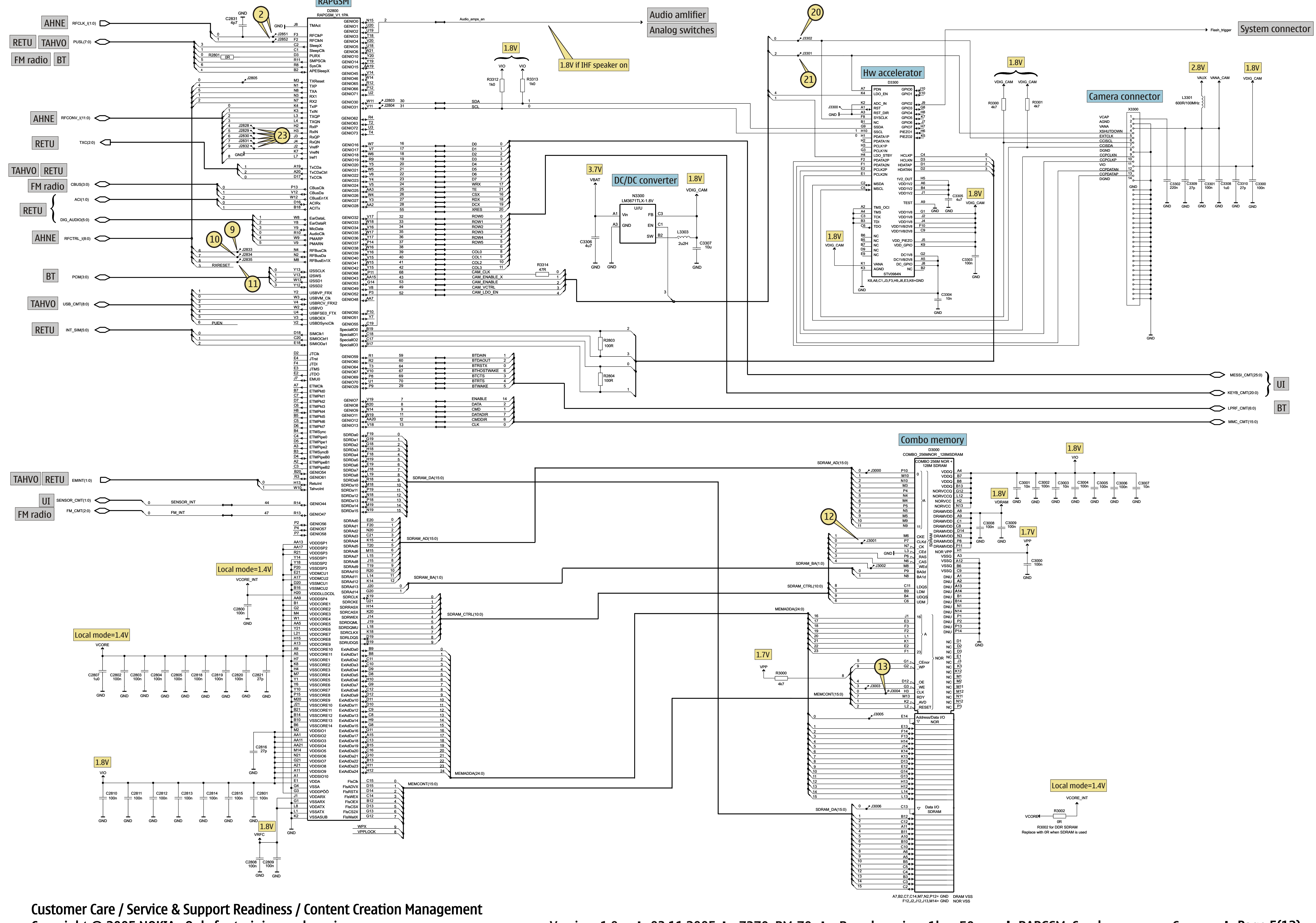
Charger plug
TAHVO
CHARGER
HW accelator
Flash_trigger
RETU
XAUDIO(7:0)
System connector
IHF speaker
Audio amplifier
1.8V if IHF speaker on
1.8V
Analog switch/Attenuator
1.8V
1.8V if IHF speaker on
3.7V
3.7V
IHF speaker
Analog switch/Attenuator
FM radio
FMANT(1:0)
RETU
TAHVO
USB_ACI(7:0)
2.8V
2mm DC connector
Pop-Port connector
Charge
Charge GND
Charge
Shielding GND
Charge GND
ACI
Vout
USB Vbus
Fbus_RX / USB D+
Fbus_Tx / USB D-
Data GND
XMICN
XMICP
XEARN
XEARP
XEARRN
XEARRP
Shielding GND



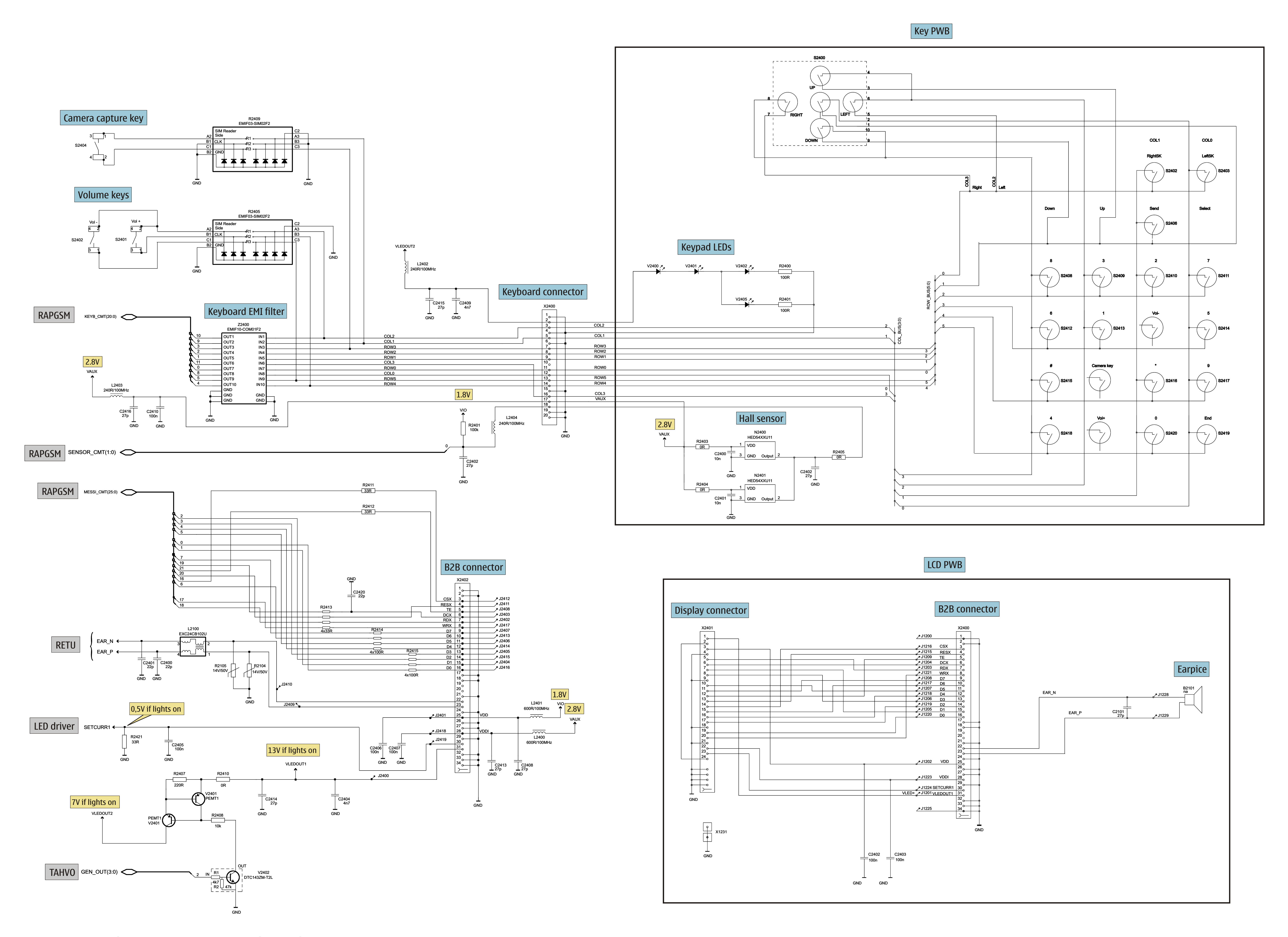
System connector
FM radio
Battery connector
3.7V
1.35V
2.8V
RETU
D2200
RETU_3.02
Microphone
UI
Vibra
TAHVO
AHNE
Power switch
Sleepclock oscillator
2.5V
Backup battery
1.8V
1.8V if RF active
Depends on SIM 1.8V/ 3V
4.7V if RF active
RAPGSM
SIM
Sleepx 1.8V in local mode
BT

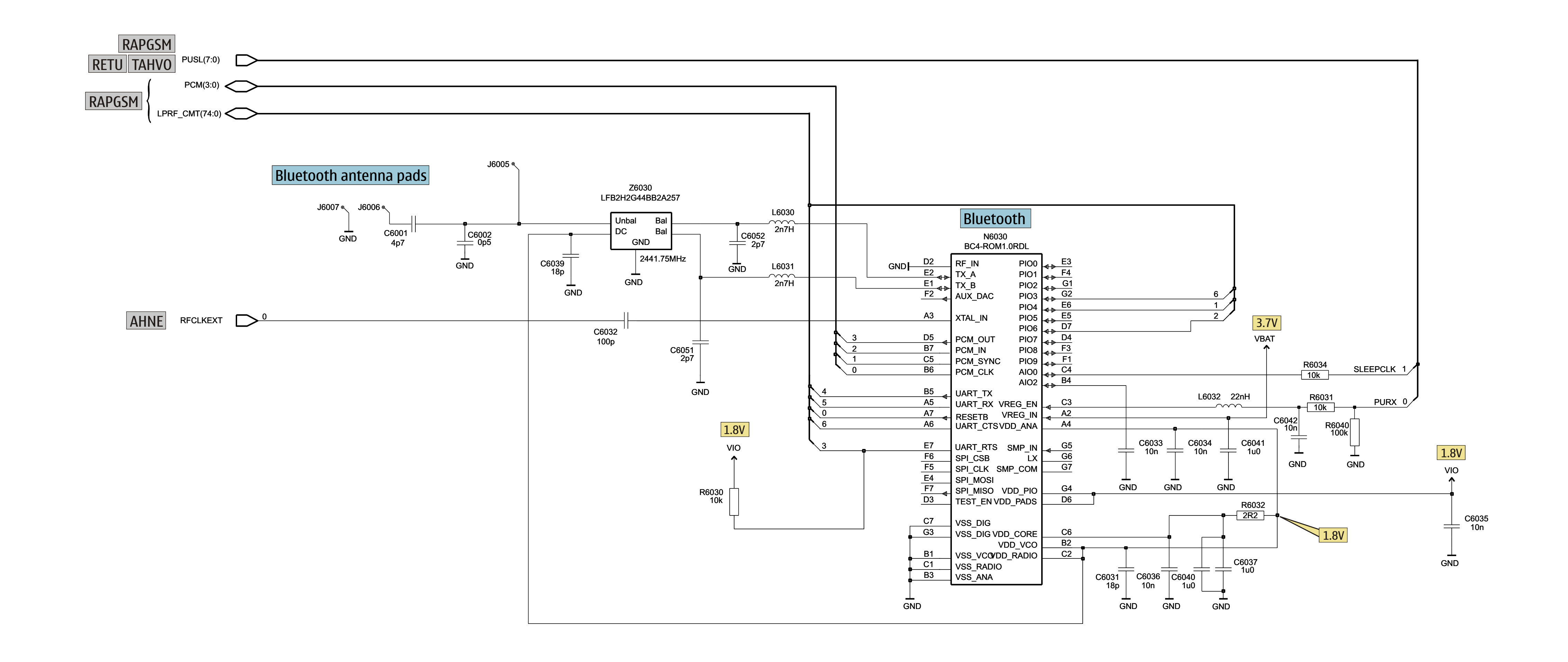


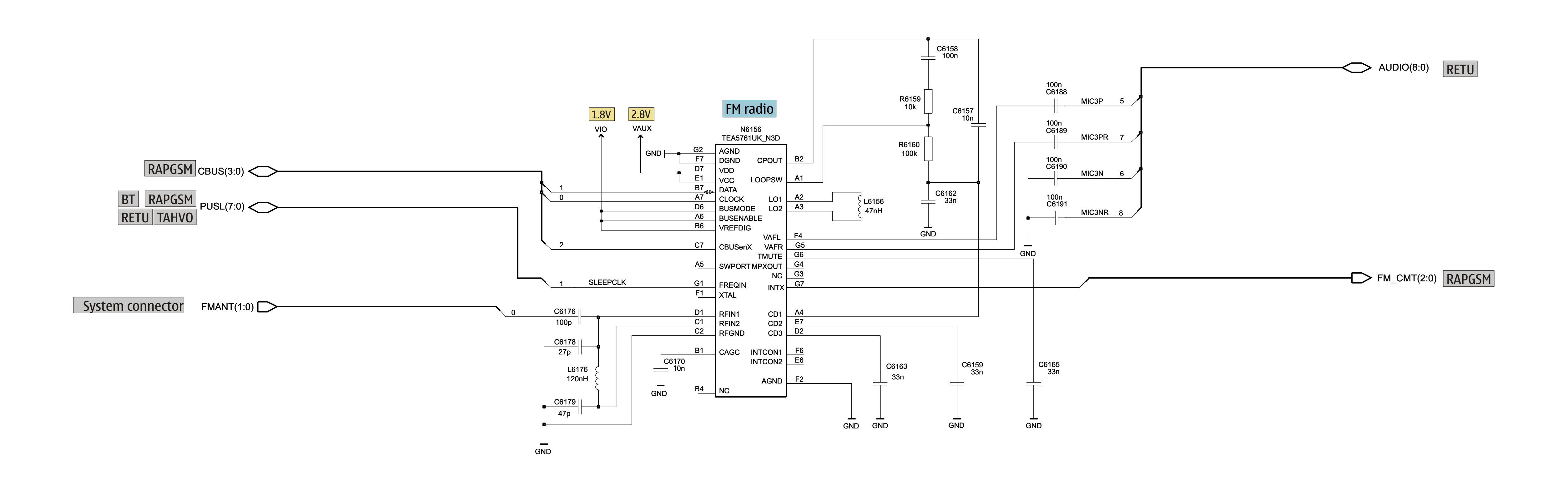
Flash interface
J2060
TAHVO
N2300
TAHVO_V5.2_LF
3.7V
VBAT
Local mode=1.4V
VCORE
L2301
220R/100MHz
L2302
10uH
R2307
100R
V2302
RSX101VA-30TR
1.8V
VIO
X2060
Traceability pad
System connector
RETU
USB_ACI(7:0)
USB_CMT(8:0)
RAPGSM
PUSL(7:0)
FM radio
BT
EMINT(1:0)
CBUS(3:0)
GEN_OUT(3:0)
UI
Charger plug
CHARGER
SLOWAD(6:0)
CHSWSTAT
L2306
600R/100MHz
2.5V if accessory connected
VOUT
Current gauge
R2300
CURRENT_SEN
SENSE-
SENSE+
5V if USB connected
VBUS
1.8V if lights on
LED driver
N2301
4W_LED_DRIVER
L2304
22uH
Power supply for display and keyboard lights
13V if lights on
VLEDOUT1
PWMTAHVO
SETCURR1
0,5V if lights on

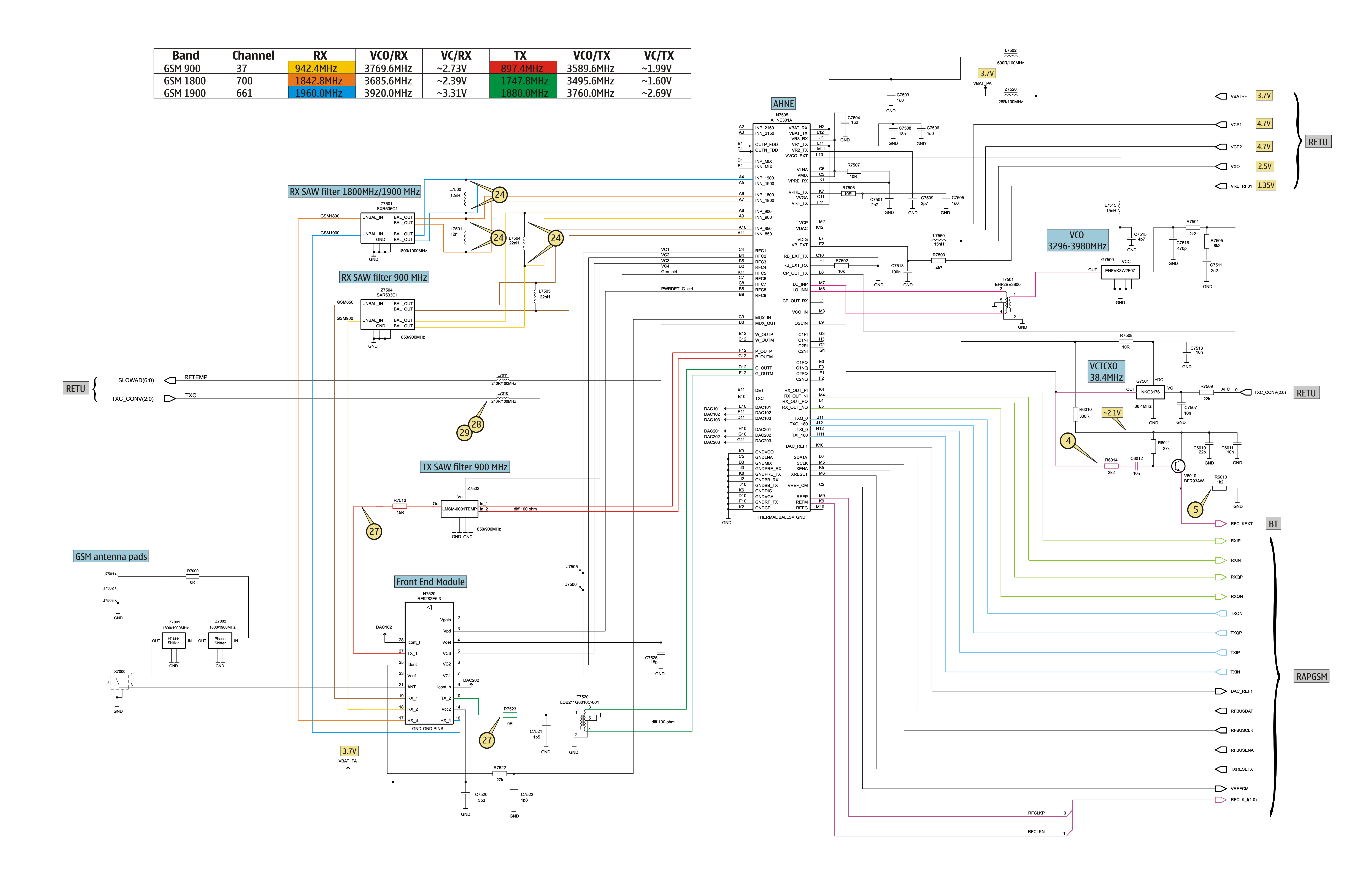


RAPGSM
Audio amlifier
Analog switches
1.8V if IHF speaker on
System connector
Hw accelerator
Camera connector
DC/DC converter
Combo memory
Local mode=1.4V
AHNE
RETU
TAHVO
FM radio
BT
UI


Key PWB
Camera capture key
Volume keys
RAPGSM
Keyboard EMI filter
Keyboard connector
Keypad LEDs
2.8V
1.8V
Hall sensor
RAPGSM
RAPGSM
B2B connector
RETU
LED driver
0,5V if lights on
13V if lights on
7V if lights on
TAHVO
LCD PWB
Display connector
B2B connector
Earpiece


RAPGSM
RETU
TAHVO
PUSL(7:0)
PCM(3:0)
RAPGSM
LPRF_CMT(74:0)
Bluetooth antenna pads
J6005
J6007
J6006
C6001
4p7
C6002
0p5
Z6030
LFB2H2G44BB2A257
Unbal
Bal
DC
GND
2441.75MHz
C6039
18p
C6052
2p7
L6030
2n7H
L6031
2n7H
AHNE
RFCLKEXT
C6032
100p
C6051
2p7
Bluetooth
N6030
BC4-ROM1.0RDL
RF_IN
TX_A
TX_B
AUX_DAC
XTAL_IN
PCM_OUT
PCM_IN
PCM_SYNC
PCM_CLK
UART_TX
UART_RX
RESETB
UART_CTS
UART_RTS
SPI_CSB
SPI_CLK
SPI_MOSI
SPI_MISO
TEST_EN
VSS_DIG
VSS_VCO
VSS_RADIO
VSS_ANA
PIO0
PIO1
PIO2
PIO3
PIO4
PIO5
PIO6
PIO7
PIO8
PIO9
AIO0
AIO2
VREG_EN
VREG_IN
VDD_ANA
SMP_IN
LX
SMP_COM
VDD_PIO
VDD_PADS
VDD_CORE
VDD_VCO
VDD_RADIO
1.8V
VIO
R6030
10k
3.7V
VBAT
R6034
10k
SLEEPCLK
R6031
10k
PURX
L6032
22nH
C6042
10n
R6040
100k
C6033
10n
C6034
10n
C6041
1u0
C6035
10n
R6032
2R2
C6031
18p
C6036
10n
C6040
1u0
C6037
1u0
GND

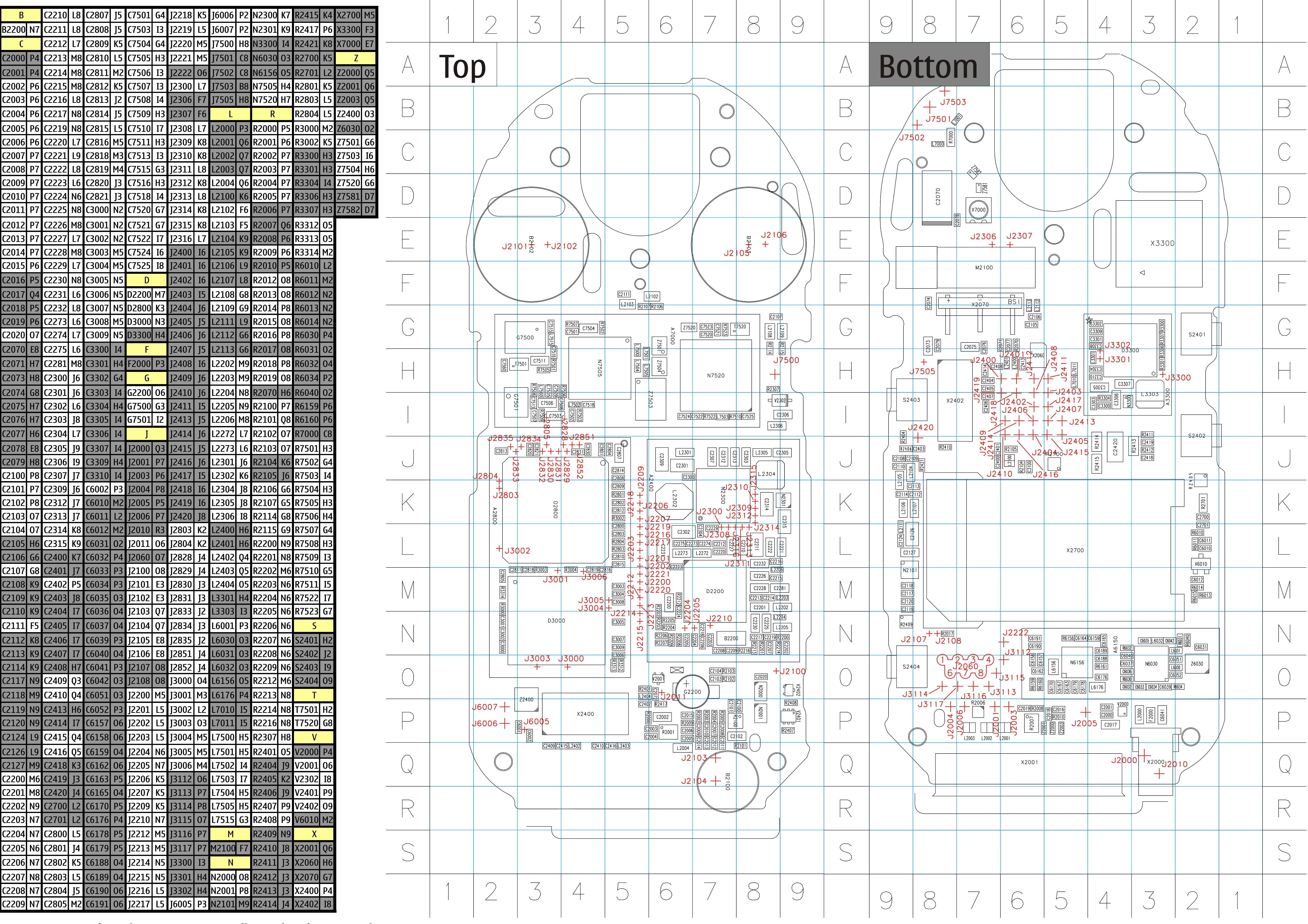

FM radio
N6156
TEA5761UK_N3D
1.8V
VIO
2.8V
VAUX
RAPGSM
CBUS(3:0)
BT
RAPGSM
RETU
TAHVO
PUSL(7:0)
System connector
FMANT(1:0)
AGND
DGND
VDD
VCC
DATA
CLOCK
BUSMODE
BUSENABLE
VREFDIG
CBUSenX
SWPORT
FREQIN
XTAL
RFIN1
RFIN2
RFGND
CAGC
NC
CPOUT
LOOPSW
LO1
LO2
VAFL
VAFR
TMUTE
MPXOUT
INTX
CD1
CD2
CD3
INTCON1
INTCON2
SLEEPCLK
L6156
47nH
C6158
100n
R6159
10k
C6157
10n
R6160
100k
C6162
33n
C6176
100p
C6178
27p
L6176
120nH
C6179
47p
C6170
10n
C6163
33n
C6159
33n
C6165
33n
C6188
100n
C6189
100n
C6190
100n
C6191
100n
MIC3P
MIC3PR
MIC3N
MIC3NR
AUDIO(8:0)
RETU
FM_CMT(2:0)
RAPGSM
GND



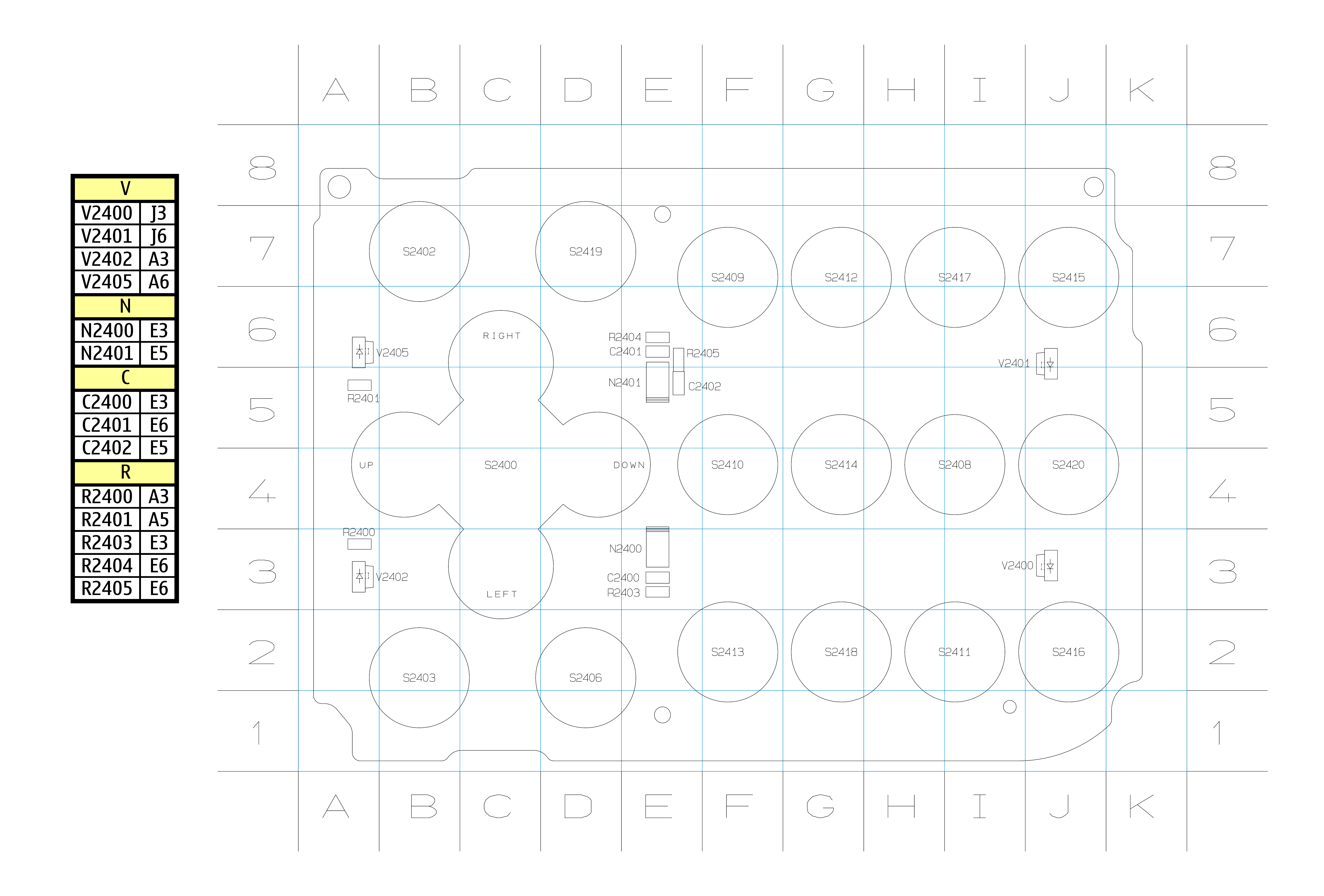
Band	Channel	RX	VCO/RX	VC/RX	TX	VCO/TX	VC/TX
GSM 900	37	942.4MHz	3769.6MHz	~2.73V	897.4MHz	3589.6MHz	~1.99V
GSM 1800	700	1842.8MHz	3685.6MHz	~2.39V	1747.8MHz	3495.6MHz	~1.60V
GSM 1900	661	1960.0MHz	3920.0MHz	~3.31V	1880.0MHz	3760.0MHz	~2.69V

1) 32 kHz at C2209	2) RFCLK at J2851-J2852	3) SLEEPCLK at J2217	4) VCTCXO 38.4MHz at R6014
5) RFCLKEXT at R6013	6) CBUSCLK at J2206	7) CBUSDA at J2207	8) CBUSENX at J2209
9) RFBUSCLK at J2833	10) RFBUSDA at J2834	11) RFBUSSENX at J2835	12) SDRCLK at J3001
13) FLSCLK at J3004	14) AUDIOCLK at J2200	15) SMPSCLK at J2308	16) SIMCLK at J2213
17) SIMDA at J2214	18) SIMIO at J2215	19) VSIM at C2701	20) CAMCLK at J3302
21) CAMENABLE at J3301	22) IHF speaker at J2101, J2102, J2105, J2106	23) RXIQ GSM900 at J2828-J2831	24) RX at L7500, L7501, L7504
25) TXCCLK at J2210	26) TXCDA at J2212	27) TX at R7510, R7523	28) TXC PL19 at L7010
29) TXC PL5 at L7010			

VBAT 4V
VBAT_PA 3.7V
VDIG_CAM 1.8V
VCORE=1.4V in local mode
VSIM 1.8V/3V
VLEDOUT1=12.5V if lights on
VRCP1=2.8V if RF active
VRCP2=2.8V if RF active
VAUX 2.8V
VR1 2.5V
VIO 1.8V
VRFC 1.8V
VANA 2.8V
VREF 1.35V
VBACK 2.5V
VDRAM 1.8V



B		C2210	L8	C2807	J5	C7501	G4	J2218	K5	J6006	P2	N2300	K7	R2415	K4	X2700	M5
B2200	N7	C2211	L8	C2808	J5	C7503	I3	J2219	L5	J6007	P2	N2301	K9	R2417	P6	X3300	F3
C		C2212	L7	C2809	K5	C7504	G4	J2220	M5	J7500	H8	N3300	I4	R2421	K8	X7000	E7
C2000	P4	C2213	M8	C2810	L5	C7505	H3	J2221	M5	J7501	C8	N6030	O3	R2700	K5	Z	
C2001	P4	C2214	M8	C2811	M2	C7506	I3	J2222	O6	J7502	C8	N6156	O5	R2701	L2	Z2000	Q5
C2002	P6	C2215	M8	C2812	K5	C7507	I3	J2300	L7	J7503	B8	N7505	H4	R2801	K5	Z2001	Q6
C2003	P6	C2216	L8	C2813	J2	C7508	I4	J2306	F7	J7505	H8	N7520	H7	R2803	L5	Z2003	Q5
C2004	P6	C2217	N8	C2814	J5	C7509	H3	J2307	F6	L		R		R2804	L5	Z2400	O3
C2005	P6	C2219	N8	C2815	L5	C7510	I7	J2308	L7	L2000	P3	R2000	P5	R3000	M2	Z6030	O2
C2006	P6	C2220	L7	C2816	M5	C7511	H3	J2309	K8	L2001	Q6	R2001	P6	R3002	K5	Z7501	G6
C2007	P7	C2221	L9	C2818	M3	C7513	I3	J2310	K8	L2002	Q7	R2002	P7	R3300	H3	Z7503	I6
C2008	P7	C2222	L8	C2819	M4	C7515	G3	J2311	L8	L2003	Q7	R2003	P7	R3301	H3	Z7504	H6
C2009	P7	C2223	L6	C2820	J3	C7516	H3	J2312	K8	L2004	Q6	R2004	P7	R3304	I4	Z7520	G6
C2010	P7	C2224	N6	C2821	J3	C7518	I4	J2313	L8	L2100	K6	R2005	P7	R3306	H3	Z7581	D7
C2011	P7	C2225	N8	C3000	N2	C7520	G7	J2314	K8	L2102	F6	R2006	P7	R3307	H3	Z7582	D7
C2012	P7	C2226	M8	C3001	N2	C7521	G7	J2315	K8	L2103	F5	R2007	Q6	R3312	O5		
C2013	P7	C2227	L7	C3002	N2	C7522	I7	J2316	L7	L2104	K9	R2008	P6	R3313	O5		
C2014	P7	C2228	M8	C3003	M5	C7524	I6	J2400	I6	L2105	K9	R2009	P6	R3314	M2		
C2015	P6	C2229	L7	C3004	M5	C7525	I8	J2401	I6	L2106	L9	R2010	P5	R6010	L2		
C2016	P5	C2230	N8	C3005	N5	D		J2402	I6	L2107	L8	R2012	O8	R6011	M2		
C2017	Q4	C2231	L6	C3006	N5	D2200	M7	J2403	I5	L2108	G8	R2013	O8	R6012	N2		
C2018	P5	C2232	L8	C3007	N5	D2800	K3	J2404	J6	L2109	G9	R2014	P8	R6013	N2		
C2019	P6	C2273	L6	C3008	M5	D3000	N3	J2405	J5	L2111	L9	R2015	O8	R6014	N2		
C2020	O7	C2274	L7	C3009	N5	D3300	H4	J2406	J6	L2112	G6	R2016	P8	R6030	P4		
C2070	E8	C2275	L6	C3300	I4	F		J2407	J5	L2113	G6	R2017	O8	R6031	O2		
C2071	H7	C2281	M8	C3301	H4	F2000	P3	J2408	I6	L2202	M9	R2018	P8	R6032	O4		
C2073	H8	C2300	J6	C3302	G4	G		J2409	J6	L2203	M9	R2019	O8	R6034	P2		
C2074	G8	C2301	J6	C3303	I4	G2200	O6	J2410	J6	L2204	N8	R2070	H6	R6040	O2		
C2075	H7	C2302	L6	C3304	H4	G7500	G3	J2411	I5	L2205	N9	R2100	P7	R6159	P6		
C2076	H7	C2303	J8	C3305	I4	G7501	I2	J2413	J5	L2206	M8	R2101	Q8	R6160	P6		
C2077	H6	C2304	L7	C3306	I4	J		J2414	J6	L2272	L7	R2102	O7	R7000	C8		
C2078	E8	C2305	J9	C3307	I4	J2000	Q3	J2415	J5	L2273	L6	R2103	O7	R7501	H3		
C2079	H8	C2306	I9	C3309	H4	J2001	P7	J2416	J6	L2301	J6	R2104	K6	R7502	G4		
C2100	P8	C2307	J7	C3310	I4	J2003	P6	J2417	I5	L2302	K6	R2105	J6	R7503	I4		
C2101	P7	C2309	J6	C6002	P3	J2004	P8	J2418	I6	L2304	J8	R2106	G6	R7504	H3		
C2102	P8	C2312	J7	C6010	M2	J2005	P5	J2419	I6	L2305	J8	R2107	G5	R7505	H3		
C2103	O7	C2313	J7	C6011	L2	J2006	P7	J2420	J8	L2306	I8	R2114	G8	R7506	H4		
C2104	O7	C2314	K8	C6012	M2	J2010	R3	J2803	K2	L2400	H6	R2115	G9	R7507	G4		
C2105	H6	C2315	K9	C6031	O2	J2011	O6	J2804	K2	L2401	H6	R2200	N9	R7508	H3		
C2106	G6	C2400	K7	C6032	P4	J2060	O7	J2828	J4	L2402	Q4	R2201	N8	R7509	I3		
C2107	G8	C2401	J7	C6033	P3	J2100	O8	J2829	J4	L2403	Q5	R2202	M6	R7510	G5		
C2108	K9	C2402	P5	C6034	P3	J2101	E3	J2830	J3	L2404	O5	R2203	N6	R7511	I5		
C2109	K9	C2403	J8	C6035	O3	J2102	E3	J2831	J3	L3301	H4	R2204	N6	R7522	I7		
C2110	K9	C2404	I7	C6036	O4	J2103	Q7	J2833	J2	L3303	I3	R2205	N6	R7523	G7		
C2111	F5	C2405	I7	C6037	O4	J2104	Q7	J2834	J3	L6001	P3	R2206	N6	S			
C2112	K8	C2406	I7	C6039	P3	J2105	E8	J2835	J2	L6030	O3	R2207	N6	S2401	H2		
C2113	K9	C2407	I7	C6040	O4	J2106	E8	J2851	J4	L6031	O3	R2208	N6	S2402	J2		
C2114	K9	C2408	H7	C6041	P3	J2107	O8	J2852	J4	L6032	O3	R2209	N6	S2403	I9		
C2117	N9	C2409	Q3	C6042	O3	J2108	O8	J3000	O4	L6156	O5	R2212	M6	S2404	O9		
C2118	M9	C2410	Q4	C6051	O3	J2200	M5	J3001	M3	L6176	P4	R2213	N8	T			
C2119	N9	C2413	H6	C6052	P3	J2201	L5	J3002	L2	L7010	I5	R2214	N8	T7501	H2		
C2120	N9	C2414	I7	C6157	O6	J2202	L5	J3003	O3	L7011	I5	R2216	N8	T7520	G8		
C2124	L9	C2415	Q4	C6158	O6	J2203	L5	J3004	M5	L7500	H5	R2307	H8	V			
C2126	L9	C2416	Q5	C6159	O4	J2204	N6	J3005	M5	L7501	H5	R2401	O5	V2000	P4		
C2127	M9	C2418	K3	C6162	O6	J2205	N7	J3006	M4	L7502	I4	R2404	J9	V2001	O6		
C2200	M6	C2419	J3	C6163	P5	J2206	K5	J3112	O6	L7503	I7	R2405	K2	V2302	I8		
C2201	M8	C2420	J4	C6165	O4	J2207	K5	J3113	P7	L7504	H5	R2406	J9	V2401	P9		
C2202	N9	C2700	L2	C6170	P5	J2209	K5	J3114	P8	L7505	H5	R2407	P9	V2402	O9		
C2203	N7	C2701	L2	C6176	P4	J2210	N7	J3115	O7	L7515	G3	R2408	P9	V6010	M2		
C2204	N7	C2800	L5	C6178	P5	J2212	M5	J3116	P7	M		R2409	N9	X			
C2205	N6	C2801	J4	C6179	P5	J2213	M5	J3117	P7	M2100	F7	R2410	J8	X2001	Q6		
C2206	N7	C2802	K5	C6188	O4	J2214	N5	J3300	I3	N		R2411	J3	X2060	H6		
C2207	N8	C2803	L5	C6189	O4	J2215	N5	J3301	H4	N2000	O8	R2412	J3	X2070	G7		
C2208	N7	C2804	J5	C6190	O6	J2216	L5	J3302	H4	N2001	P8	R2413	J3	X2400	P4		
C2209	N7	C2805	M2	C6191	O6	J2217	L5	J6005	P3	N2101	M9	R2414	J4	X2402	I8		



Component	Location
V	
V2400	J3
V2401	J6
V2402	A3
V2405	A6
N	
N2400	E3
N2401	E5
C	
C2400	E3
C2401	E6
C2402	E5
R	
R2400	A3
R2401	A5
R2403	E3
R2404	E6
R2405	E6

B	
B2101	M5
C	
C2101	M6
C2402	M3
C2403	M2
J	
J1200	F3
J1201	E2
J1202	E2
J1203	E3
J1204	F2
J1205	F2
J1206	E1
J1207	E1
J1208	F1
J1209	F1
J1215	F2
J1216	F2
J1217	F2
J1218	E2
J1219	E2
J1220	F3
J1221	F3
J1223	F2
J1224	E3
J1225	F1
J1228	N5
J1229	M5
X	
X1230	M7
X1231	M1
X2400	A2
X2401	M2

